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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/520,374	09/12/2005	Milan Jelinek	871V.0138.U1(US)	2531
29683 7590 12/21/2009 HARRINGTON & SMITH, PC 4 RESEARCH DRIVE, Suite 202 SHELTON, CT 06484-6212			EXAMINER HE, JIALONG	
			ART UNIT 2626	PAPER NUMBER
			MAIL DATE 12/21/2009	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/520,374	<b>Applicant(s)</b> JELINEK ET AL.	
	<b>Examiner</b> JIALONG HE	<b>Art Unit</b> 2626	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 October 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2,3,6,14,19,32,63-65,67-72,74-78,81-89,91-95 and 114-141 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2,3,6,14,19,32,63-65,67-72,74-78,81-89,91-95 and 114-141 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)         | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

#### ***Response to Arguments***

2. Applicant's arguments filed on 10/23/2009 have been fully considered but they are not persuasive for the following reasons.

Applicant argues (Remarks, page 20) that Proctor does not disclose or suggest that the dropped parameters are regenerated.

In response, the Examiner notes the feature of regenerating coding parameters is taught by El-Maleh (**previously cited, fig. 3, generating random excitation based on received gain and spectral parameters**). The combined teaching teaches that coding parameters are dropped and later regenerated at receiving end.

The applicant further argues (Remarks, pages 20-22) that Proctor does not disclose or suggest *"inserting information into the frame, wherein the information indicates that the frame is encoded in accordance with a particular communication mode that involves dropping the portion of the signal-coding parameters"*. The arguments are moot in view of the new ground of rejection necessitated by the

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amendments. Reference to Xu (6,885,638) was relied upon for teaching the new feature. Xu discloses in-band signaling by dropping some packets. The transmitted packets contain information indicates communication mode (Fig. 3, packet format, fig. 5, packet classification bits and drop precedence bits indicating full rate, half rate etc).

### ***Claim Rejections - 35 USC § 103***

3. Claims 2,3,14,19,32,63, 65,67-69, 71,74-76, 78,81-86, 88, 91-93, 95, 115-120, 122-125, 127-129, 131-135 and 137-140 are rejected under 35 U.S.C. 103(a) as being unpatentable over Proctor (US Pat. 5,519,779, previously cited, hereinafter referred to as Proctor) in view of El-Maleh (US PG Pub. 2002/0101844, previously cited, hereinafter referred to as El-Maleh) and further in view of Xu et al. (US pat. 6,885,638, hereinafter referred to as Xu).

Claims 2, 3,14,19, 32, 63, 65, 67-69, 71, 74-76, 78, 81-86, 88, 91-93, 95, 115-120, 122-125, 127-129, 131-135 and 137-140 recite following limitations in various combinations,

Proctor discloses a system, method and device comprising a first station (**fig. 1, #12, mobile phone at sending end**) and second station (**fig. 1, #20, mobile phone at receiving end**)

said first station comprising:

means for receiving a request to transmit a frame using a second communication mode a first communication scheme to reduce bit rate during transmission of said

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frame, wherein the frame comprises signal-coding parameters representative of a sound signal and wherein the frame is encoded in accordance with a first communication mode of the first communication scheme (**fig. 1, col. 3, line 35 – col. 6, line 65, mobile phone communication using dim-and-burst for signaling by dropping some coding parameters (LSP, codebook index), using CDMA as an example** (first communication scheme), **half rate** (second communication mode) ),

means for dropping, in response to said request, a first portion of the signal-coding parameters to enable transmission of the frame using the second communication mode of the first communication scheme (**fig. 1, col. 5, line 61 – col. 6, line 15, #40, rate reducer, from full rate to half rate**),

means for transmitting the remaining signal coding parameters frame using the second communication mode of the first communication scheme (**fig. 1, #18, transmitting reduced rate of coded speech to receiver #44**);

said second station comprising:

means for receiving the remaining transmitted frame, wherein the transmitted frame comprises the information and a second portion of the signal- coding parameters (**fig. 1, #18, #20, mobile phone at receiving end; col. 1, lines 40-42, the encoded signal is transmitted to a receiving unit**),

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means for transmitting the frame in accordance with the communication mode of the first communication scheme signal coding parameters using the remaining signal coding parameters (**fig. 1, #18, #20, signal from base station to a receiving mobile phone**).

Proctor discloses using "dim-and-burst" method to transmit signals by reducing frame rates from a full-rate to a half-rate in mobile communication. Although Proctor mentioned communication system could be a TDMA system (**col. 1, line 49**), Proctor uses a CDMA system as an example when describing his system (**col. 3, line 42**). Proctor does not disclose interoperation between a first communication scheme and second communication scheme.

El-Maleh discloses the first communication mode of the first communication scheme is interoperable with a first communication mode of a second communication scheme and the second communication mode of the first communication scheme is not interoperable with the first communication mode of the second communication scheme (**El-Maleh, [0008-0010], CTX (CDMA system) and DTX (GSM system) is interoperable for speech segments (first mode) but inoperable for non-speech segments (1/8 rate, second mode)**)).

Proctor and El-Maleh are analogous art and from a similar field of applicant's endeavor in speech coding. It would have been obvious to one of ordinary skill in the art

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at the time of the invention to include compatible operation for speech segments and incompatible for non-speech segments as taught by El-Maleh in Proctor's teaching since all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods, and in the combination each element merely would have performed the same function as it did separately. "A combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." KSR, 550 U.S. \_\_\_, 82 USPQ2d at 1395 (2007). One of ordinary skill in the art would have recognized that the results of the combination were predictable.

Proctor discloses using "dim-and-burst" method to transmit signals by reducing frame rates from a full-rate to a half-rate in mobile communication. Although Proctor discloses the rate is reduced from full-rate to half-rate (col. 5, line 45 – col. 6, line 15), Proctor does not explicitly disclose inserting information into the frame, wherein the information indicates that the frame is encoded in accordance with a particular communication mode of the first communication scheme that involves dropping the first portion of the signal-coding parameters.

Xu discloses in-band signaling method by dropping some packets to reduce communication congestion. Xu discloses inserting information into the frame, wherein the information indicates that the frame is encoded in accordance with a particular communication mode of the first communication scheme that involves dropping the first

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portion of the signal-coding parameters (**Xu, fig. 3, frame format with information bit segments 302 and 308; fig. 5 and fig. 6, shows 302 has 3 bits and 308 has 3 bits, indicating a particular communication mode, such as full rate, or half rate).**

Proctor and Xu are analogous art and from a similar field of applicant's endeavor in wireless communication. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to combine Proctor's teaching with Xu's teaching to insert bit segments to indicate that the frame is encoded in accordance with a particular communication mode. One having ordinary skill in the art would have been motivated to make such a modification because the quality of service of wireless communication can be improved (**Xu, col. 2, liens 20-25).**

4. Claims 6, 64, 70, 77, 87 and 94 are rejected under 35 U.S.C. 103(a) as being unpatentable over Proctor in view of El-Maleh and Xu and further in view of Jacobs et al. (US Pat. 5,414,796, previously cited, hereinafter referred to as Jacobs).

Regarding claims 6, 64, 70, 77, 87 and 97, the combined teaching of Proctor and El-Maleh discloses signaling by dim-and-burst and dropped coding parameters are regenerated (**El-Maleh, fig. 3, [0010-0012], generating comfort noise based on received gain and spectral shape).**

Proctor and El-Maleh fail to but Jacobs discloses the dropped portion of the signal-coding parameters comprises fixed codebook indices and wherein generating



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replacement signal-coding parameters comprises randomly generating replacement fixed codebook indices (**Jacobs, col. 12, lines 44-60, generates random code vectors**).

Proctor and Jacobs are analogous art and from a similar field of applicant's endeavor in speech coding. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Proctor's teaching with Jacobs's teaching to adjust bit rate based on the decided rate and rate control commands (a request) and drop codebook index to reduce bit rate. The claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

5. Claims 72, 89, 114, 121, 126, 130, 136 and 141 are rejected under 35 U.S.C. 103(a) as being unpatentable over Proctor in view of El-Maleh and Xu and further in view of Garg ("IS-95 CDMA and cdma 2000", previously cited, Prentice Hall, 2000).

Regarding claims 72, 89, 114, 121, 126, 130, 136 and 141, Proctor discloses inserting signaling using dim-and-burst and reducing speech from full-rate to half rate in a CDMA system. Proctor in view of El-Maleh discloses interoperation between CDMA

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and GSM (AMR-WB) systems but fails to disclose interoperation between CDMA2000 and GSM. Garg discloses CDMA and CDMA2000 system (Garg, page 1).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to substitute CDMA with CDMA2000, since each individual element and its function are shown in the prior art and one of ordinary skill in the art could have substituted one known element for another by known methods. "Simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for the improvement." KSR, 550 U.S. \_\_\_, 82 USPQ2d at 1395 (2007). One of ordinary skill in the art would have recognized that the results of the simple substitution were predictable.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Odenwalder (US PG Pub. 2002/0006138) discloses adaptive multi-rate coding (AMR) coding method for CDMA 2000.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JIALONG HE whose telephone number is (571)270-5359. The examiner can normally be reached on Monday-Thursday, 7:00 - 4:30, Alt Friday, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on (571) 272-7602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JH/

/Richemond Dorvil/  
Supervisory Patent Examiner, Art Unit 2626